

CALFED Core Action List and Implementation Levels

Draft – December 7, 1995

	Core Level	Maximum Level	Comments Regarding Implementation Levels
BAY-DELTA HABITAT RESTORATION			
Restoration of Delta Shallow Water (Tidal) Habitat			
- Protect existing shallow habitat from erosion	1.00		at core, protect all existing habitat
Restoration of Delta Riverine Habitat			
- Restore/preserve channel islands	0.50	1.00	at core, restore/preserve highest priority sites
- Modify maintenance designs to include riverine elements	0.20	0.50	half of sites require standard practices
Restoration of Delta Riparian Habitat			
- Improve and protect degraded riparian habitats	0.20	1.00	at core, improve highest priority sites
- Modify levee maintenance practices	0.20	0.50	half of sites require standard practices
- Protect existing riparian habitat	0.50	1.00	at core, protect highest priority sites
Restoration of Delta Wetland Habitat			
- Enhance existing wetlands	0.20	1.00	core focus on highest priority (e.g. largest, most connected)
- Expand wetland acquisition programs	0.20	0.50	half of existing wetlands feasible to purchase at max. level
- Protect existing wetland habitat	0.50	0.80	at max., some existing wetland will be lost and mitigated
Restoration of Delta Terrestrial Habitat			
- no core actions in this category			
Integrated Habitat Management Programs			
- establish integrated habitat management programs	0.50	1.00	core for primary Delta area, max. for Delta watershed
Establishment of Floodways and Meander Belts			
- no core actions in this category			
Control of Introduced Species			
- Improve regulation of ballast-water releases	1.00		at core, implement maximum possible improvements
- Improve border inspection practices	1.00		at core, implement maximum possible improvements
Delta Waterfowl Habitat Management			
- no core actions in this category			

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UPSTREAM HABITAT RESTORATION			
Restoration of Upstream Anadromous Fish Habitat			
- Manage flows and temperatures in upstream habitats	0.20	0.80	at max. level, full implementation of AFRP flows is not feasible
- Restore and replenish spawning gravels	0.20	0.50	core focus on highest priority sites, max. focus on remaining feasible
- Modify gravel mining practices	1.00		at core, implement maximum possible improvements to regulations
Physical Improvements for Fish Passage			
- Modify passage at upstream dams/other barriers	0.20	0.50	core focus on highest priority sites, max. focus on remaining feasible
- Modify natural barriers to improve passage	0.20	0.50	core focus on highest priority sites, max. focus on remaining feasible
Restoration of Upstream Riparian Habitat			
- Restrict livestock grazing in riparian corridors	0.20	0.50	core focus on highest priority sites, max. focus on remaining feasible
- Revegetate degraded riparian habitats	0.20	0.50	core focus on highest priority sites, max. focus on remaining feasible
Restoration of Upstream Wetland Habitat			
- no core actions in this category			upstream wetlands would not benefit for aquatic habitats

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REDUCTION IN EFFECTS OF DIVERSIONS			
Delta Inflow Management			
- Provide instream pulse flows for fish passage	0.20	1.00	core focus on highest priority species and time periods, max. all
- Provide instream flows for fish attraction	0.20	1.00	core focus on highest priority species and time periods, max. all
Delta Outflow/Export Management			
- Use real-time monitoring and adaptive management	0.50	1.00	core implementation at 50% of maximum possible implementation
Modification of Diversion Timing Patterns			
- no core actions in this category			
Increased Rates of Diversion Capacity			
- no core actions in this category			
Acquire Water Supplies for Fish and Wildlife			
- no core actions in this category			
Installation and Improvement of Fish Screens			
- Install screens on other in-Delta diversions	0.20	0.50	core focus on highest priority diversions, max. on all feasible
- Install screens on upstream diversions	0.20	0.50	core focus on highest priority diversions, max. on all feasible
- Enforce screening requirements	0.20	0.50	core focus on highest priority diversions, max. on all feasible
Installation of Barriers to Guide Fish Movement			
- Operate fish barrier on San Joaquin R. at Merced R. in fall	1.00		at core, installation and operation of entire barrier
Improvement of Fish Salvage Operations			
- Improve operation of salvage facilities	0.20	0.50	core focus on most cost effective improvements, max. at all feasible
- Improve fish hauling and release procedures	0.20	0.50	core focus on most cost effective improvements, max. at all feasible
Removal and Control of Aquatic Predators			
- no core actions in this category			

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MANAGEMENT OF ANADROMOUS FISH			
Fish Hatchery Operations			
- Improve hatchery operations	0.20	0.50	core focus on most cost effective improvements, max. at all feasible
- Reduce hatchery effects on wild fish populations	0.20	0.50	core focus on most cost effective reductions, max. at all feasible
- Implement tagging of hatchery-bred fish	0.20	1.00	core focus on most cost effective scale, max. on entire production
- Establish new captive breeding programs	0.20	0.50	core focus on most cost effective program, max. at most feasible
Fish Harvest Management			
- Improve regulation of commercial take	1.00		core implementation of maximum possible improvements
- Improve regulation of recreational take	1.00		core implementation of maximum possible improvements
- Improve enforcement of harvest regulations	1.00		core implementation of maximum possible improvements

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REDUCTION IN EXPORT RELIANCE			
Desalination			
- Educate users about desalination feasibility	1.00		core implementation of maximum educational program
Water Conservation			
- Increase use of agricultural water conservation practices	0.20	0.50	core focus on most cost effective practices, max. on all feasible
- Increase use of M and I conservation practices	0.20	0.50	core focus on most cost effective practices, max. on all feasible
- Educate users about conservation technologies	1.00		core implementation of maximum educational program
Water Reclamation			
- Educate users about water reclamation	1.00		core implementation of maximum educational program
Land Retirement and Fallowing			
- Encourage land fallowing during drought periods	0.20	0.50	core focus on highest priority lands, max. on all feasible
- Develop incentive programs for land retirement	0.20	0.50	core focus on most cost effective program, max. on largest feasible
Water Pricing			
- Educate users about pricing feasibility	1.00		core implementation of maximum educational program

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INCREASING WATER SUPPLY PREDICTABILITY			
Water Transfers			
- Modify California Water Code to ease transfers	0.50	1.00	core focus on most feasible modifications
- Improve procedures for transfer permitting	0.50	1.00	core focus on most feasible modifications
- Coordinate diversion and conveyance of transfers	0.50	1.00	core focus on most feasible forms of coordination
- Establish transfer brokerage mechanism	0.50	1.00	core focus on most feasible mechanism for brokerage
Long-Term Planning for Drought Contingencies			
- Conduct Integrated Resources Planning	0.50	1.00	core focus on most cost effective service areas
- Manage water resources data and information	0.50	1.00	core focus on most cost effective management procedures
Institutions for Integrated Long-term Water Management			
- Establish long-term guarantees for management	0.50	1.00	core focus on most cost effective means of guarantees
- Coordinate multiagency roles in management	0.50	1.00	core focus on most cost effective means of coordination
- Coordinate groundwater/surface water management	0.50	1.00	core focus on most cost effective means of coordination
- Establish incentives for cooperation/coordination	0.50	1.00	core focus on most cost effective incentive program
- Establish a public awareness/education program	1.00		core implementation of maximum educational program
Establishment of Export Capacity Market			
- no core actions in this category			
Integration of Land-Use and Water-Supply Planning			
- Coordinate land uses with water supplies	0.50	1.00	core focus on most cost effective means of coordination

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WATER SUPPLY ENHANCEMENT			
Watershed Management			
- Manage riparian zones to protect water quality	0.20	0.50	core focus on highest priority sites, max. on all feasible
- Manage land uses to protect water quality	0.20	0.50	core focus on highest priority lands, max. on all feasible
New or Expanded On-Stream Storage			
- no core actions in this category			
New or Expanded Off-Stream Storage			
- no core actions in this category			
Groundwater Banking and Conjunctive Use			
- Establish incentives for conjunctive use	0.50	1.00	core focus on most cost effective incentives
- Modify Water Code to encourage conjunctive use	0.50	1.00	core focus on most cost effective incentives
Improvement of Through-Delta Conveyance			
- no core actions in this category			
Construction & Improvement of Conveyance Facilities			
- no core actions in this category			
Changes in Locations of Diversions			
- no core actions in this category			

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Water Transfers			
- Modify California Water Code to ease transfers	0.50	1.00	core focus on most feasible modifications
- Improve procedures for transfer permitting	0.50	1.00	core focus on most feasible modifications
- Coordinate diversion and conveyance of transfers	0.50	1.00	core focus on most feasible forms of coordination
- Establish transfer brokerage mechanism	0.50	1.00	core focus on most feasible mechanism for brokerage
Long-Term Planning for Drought Contingencies			
- Conduct Integrated Resources Planning	0.50	1.00	core focus on most cost effective service areas
- Manage water resources data and information	0.50	1.00	core focus on most cost effective management procedures
Institutions for Integrated Long-term Water Management			
- Establish long-term guarantees for management	0.50	1.00	core focus on most cost effective means of guarantees
- Coordinate multiagency roles in management	0.50	1.00	core focus on most cost effective means of coordination
- Coordinate groundwater/surface water management	0.50	1.00	core focus on most cost effective means of coordination
- Establish incentives for cooperation/coordination	0.50	1.00	core focus on most cost effective incentive program
- Establish a public awareness/education program	1.00		core implementation of maximum educational program
Establishment of Export Capacity Market			
- no core actions in this category			
Integration of Land-Use and Water-Supply Planning			
- Coordinate land uses with water supplies	0.50	1.00	core focus on most cost effective means of coordination

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MANAGEMENT OF WATER QUALITY			
Installation and Operation of Flow Barriers			
- no core actions in this category			
Management of Agricultural Drainage			
- Implement source control regulations for pollutants	0.50	1.00	core focus on most cost effective means of source control
- Reduce or control volume of agricultural discharges	0.20	0.50	core focus on most cost effective reduction, max. at most feasible
- Retire lands with drainage disposal problems	0.20	0.50	core focus on most cost effective retirement, max. at most feasible
- Improve pest-control practices	0.20	0.50	core focus on most cost effective improvement, max. at most feasible
- Manage irrigation tailwater to reduce pesticides	0.20	0.50	core focus on most cost effective reductions, max. at most feasible
Management of Urban and Wastewater Discharge			
- Retain and manage stormwater runoff	0.20	0.50	core focus on most cost effective sites, max. at most feasible
- Implement urban awareness/education programs	1.00		core implementation of maximum educational program
- Enforce wastewater discharge requirements	1.00		core implementation of existing law
- Prevent toxic discharges from industrial plants	1.00		core implementation of existing law
Dredged Material Management			
- Limit dredging to avoid fish migration periods	0.50	1.00	core focus on most feasible limits on timing to avoid migration
- Use techniques to localize sediment movement	0.50	1.00	core focus on most feasible techniques to localize sediments
- Dispose dredged materials at nonaquatic sites	0.20	0.50	core focus on most cost effective sites, max. at most feasible
- Ensure nontoxic material used for levee maintenance	1.00		
Management of Mine Drainage			
- Manage discharges from abandoned mines	0.20	0.50	core focus on most cost effective sites, max. at most feasible
- Remediate abandoned mining sites discharging pollutants	0.20	0.50	core focus on most cost effective sites, max. at most feasible

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IMPROVEMENTS TO SYSTEM RELIABILITY			
Levee Maintenance and Stabilization			
- Maintain and stabilize existing levees	0.20	1.00	core focus on highest priority sites, max. at all sites needed
- Modify agricultural practices to reduce subsidence	0.20	0.50	core focus on most cost effective sites, max. at most feasible
- Implement uniform maintenance standards	0.50	1.00	core focus on most cost effective standardization
- Provide funding for maintenance and stabilization	0.20	1.00	core focus on highest priority sites, max. at all sites needed
Improvement of Flooding & Seismic Protections			
- no core actions in this category			
Rerouting and Protection of Infrastructure			
- Maintain/reconstruct levees around infrastructure	0.20	1.00	core focus on highest priority sites, max. at all sites needed
Establishment of Long-Term Funding Mechanisms			
- no core actions in this category			